Saskatchewan
Alcohol and
Drug Abuse
Commission

TECHNICAL REPORT

The Size and Location of the Indian Population of Saskatchewan:

A Review of Four Data Sources

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February 1989

Introduction

The purpose of this report is three-fold: first, to document the limitations of Health Insurance Registration Information System (HIRIS) Registered Indian population figures as a basis for calculating the incidence of alcohol and drug related legal offences in regions which contain populated Indian Reserves; second, to identify the major limitations of alternate sources of data with regard to the size and demographic composition of on-reserve Indian populations in Saskatchewan; and third, to outline the course of research pursued by SADAC to resolve this methodological problem.

The Background

In 1987, the Evaluation and Research Branch of SADAC began studying the incidence of 5 groups of alcohol and drug related legal offences (i.e., Liquor Act, Driving While Impaired, Drug, Assault and Disturbing the Peace Offences) - by RCMP detachment, major urban centre and region - for the calendar year of 1986.

A prerequisite for this study was reliable, small-area population data. Two potential data sources were considered - the 1986 Census and the Health Insurance Registration Information System (HIRIS), an administrative information system maintained by Saskatchewan Health.

The 1986 Census of Canada is the most comprehensive source of demographic, social and economic information about the Saskatchewan population. The demographic content of the HIRIS file, in contrast, is limited to information about the age and sex of the Saskatchewan population by residence based on the postal code of Saskatchewan Health Insurance card holders.

SADAC required a multipurpose data base which would permit the bi-annual monitoring of offence rate trends as well as alcohol and drug related morbidity and mortality rate trends. As the census is conducted just once each five years, while the HIRIS data set is updated continuously and published annually, the HIRIS data set was selected to serve as the study's primary population data base.

By methodically matching HIRIS residence groupings (cities, towns, villages, rural municipalities and Indian Bands) with their appropriate RCMP detachment, a preliminary estimate of the size, and sex and age distribution of each police jurisdiction was completed. However, one major methodological hurdle remained.

The Problem

Saskatchewan Registered Indians, unlike other Health Insurance card holders, are categorized by Band membership rather than place of residence. As a consequence, the HIRIS file fails to provide an accurate picture of the Registered Indian population of the province by place of residence. By virtue of the fact that over one-third of the Saskatchewan Registered Indians reside off-reserve (Jarvis, 1987), the HIRIS file overestimates the number of people living on reserve. And therefore, the HIRIS data base would produce underestimates of offence rates in detachments which include sizeable Registered Indian populations.

Data Sources Considered

Three alternate sources of population data were considered. These include the Indian and Native Affairs Canada (INAC) Indian Register, the Medical Services Branch, Health and Welfare Canada "Population Count", and the 1986 Census.

The INAC Indian Register

The INAC Indian Register is an administrative information system which records demographic events such as births, deaths and marriages in the Registered Indian population (as defined by the Indian Act). Information on this list is periodically updated by Band officials and published annually. This data source suffers from at least two major shortcomings.

First, and perhaps most important, on- and off-reserve residence is not clearly defined. INAC is unable to provide a clear and consistent definition of 'on-reserve residence' (correspondence, April 1988). This is not especially surprising in light of disputes - past and present - with respect to who is, and who is not an Indian for purposes of the Indian Act; ongoing federal/provincial/Band council disagreements with respect to per capita funding for Band administered, population-based programming; and ongoing discord with respect to which level of government - federal or provincial - should bear responsibility for the provision of statutory services to Registered Indians residing off-reserve.

Although the INAC definition of an off-reserve resident for the purpose of obtaining social assistance is a person who has "lived off-reserve for 12 consecutive months for other than health or educational reasons", this is a definition which has been hotly contested (Boyd and Rosenberg, 1987:46).

Second, discussions with officials from INAC, Health and Welfare and Statistics Canada indicate that data for on- and off-reserve locations are unreliable due to late and underreporting (Correspondence, April 1988; Norris, 1985). Births are subject to reporting delays of up to eleven years, and deaths are subject to reporting delays of three to five years (Boyd and Rosenberg, 1987:2). Moreover, when a Registered Indian resides off-reserve, "the actual place of residence is not recorded, only the fact that the residence is off-reserve", be it in- or out-of-province (Norris, 1985:4).

Health and Welfare

In December 1987, the Saskatchewan Region, Medical Services Branch, Health and Welfare Canada initiated a population count, by age and sex, of the population it provides services to. By so doing, it sought to overcome some of the perceived limitations of the Indian Register data (Correspondence, August 1988). This count was conducted in conjunction with an annual door to door health survey of Indian Reserves, settlements and residential schools by Community Health Nurses and Community Health Representatives.

The greatest shortcoming in the Health and Welfare population count is that demographic data are limited to those reserves and settlements served by the Medical Services Branch. Therefore, for example, northern settlements which have a minority Registered Indian population, but receive health services from the Northern Health Services Branch of Saskatchewan Health, are not included in the count.

A second limitation of the Health and Welfare count is that it was conducted in December 1987, not 1986. With the June 1985 passage of Bill C-31 to eliminate discriminatory and/or unjust sections of the Indian Act, many people have applied to be reinstated as Registered Indians. As a consequence, the Health and Welfare counts may, in some instances, provide inaccurate estimates of on-reserve populations as of 1986.

Statistics Canada

Although the Census Aboriginal population data have several strengths, this source is not without weaknesses.

The 1986 Census Aboriginal Peoples Output Program presents a statistical profile of all completely enumerated Indian Reserves in Canada with a minimum population of 40. Included in this profile are data on the total population residing on a reserve or in a settlement by age, sex, mother tongue, marital status, family type and household composition (Statistics Canada, 1988).

Four additional features of the Statistics Canada data warrant brief comment.

First, the profiles include all Aboriginal persons, regardless of ethnicity or legal status, residing in a reserve community as of June 3, 1986. But excluded from consideration are institutional residents (e.g., inmates of provincial and federal correctional facilities, hospital patients, children in special care or group homes, etc.), not to mention students temporarily residing off-reserve (Statistics Canada, Jan. 1987: 35-36). In other words, "individuals temporarily off-reserve are counted wherever they may be, but not as on-reserve" (Boyd and Rosenberg, 1987:5).

Second, Statistics Canada and INAC define Aboriginal groups differently. Whereas the Indian Register contains information about Status or Registered Indians as defined under the terms and conditions of the Indian Act, the Census count is derived from an ethnic origin question which asks respondents to self-define themselves as North American Indian, Metis or Inuit (Statistics Canada, Dec. 1987). Thus, INAC figures and Statistics Canada figures are not directly comparable (Boyd and Rosenberg, 1987: 4-8).

Third, an enumeration was not completed on 4 Saskatchewan reserves - the KeeseKoose, Little Black Bear, Okaneese and Star Blanket Reserves (Statistics Canada, Sept. 1987: Annex 2).

Fourth, 6 northern Saskatchewan settlements were excluded due to enumeration problems, as were 15 settlements which had a population of less than 40 (Statistics Canada, Dec. 1987).

Data Base Selection and Adjustments

In summary, each of the 3 data bases has shortcomings and strengths. The INAC Indian Register provides a fairly accurate count of the Registered Indian population of Saskatchewan origins, but it is unsatisfactory as a source with regard to people's current place of residence. The Health & Welfare count provides a fairly accurate profile of the population served by the Medical Services Branch; however, it does not include all Saskatchewan Registered Indians residing on-reserve or crown land (who receive medical services from the province) and contains no information on off-reserve urban residents. And although the Census provides a comprehensive source of information on the age and sex composition of Saskatchewan Reserve populations, it is not strictly compatible with data from the INAC Register, which, in turn, forms the basis for the HIRIS count.

The Choice

SADAC's goal was to create a data base which, to the greatest extent possible, accurately reflected the size and demographic composition of the population of each RCMP detachment and urban centre in the province as of 1986. This led to the selection of the Census data to replace the HIRIS Registered Indian population count. But, as noted above, the HIRIS and Statistics Canada counts are not strictly compatible, necessitating several modifications to the HIRIS data set.

The general procedure adopted to calculate the 'on-reserve' population of Saskatchewan follows:

a) the constituent elements of a given Band (reserves and settlements) were assigned to an appropriate detachment;
b) the HIRIS Registered Indian figures were replaced with Statistics Canada Aboriginal population figures, save for the 4 reserves which were not enumerated for which Health and Welfare data were used;
c) the 'surplus' population, that is, the difference between the Statistics Canada reserve population and the HIRIS band figure, was assumed to constitute an 'off-reserve' population;
d) based upon research conducted by Clatworthy and Hull (1983) on migration patterns among Saskatchewan Aboriginal people, it was assumed that Regina, Saskatoon, Prince Albert, North Battleford and Yorkton constituted the principal Saskatchewan destinations for this surplus (note, an undetermined portion of this migration was out-of-province); and
e) HIRIS figures for the cities of Regina, Saskatoon, Prince Albert, North Battleford and Yorkton were replaced with 1986 Census figures.

A Comparison of the Indian Register, HIRIS, Health and Welfare and Census population counts

Table 1 shows that the estimated size of the Indian population of Saskatchewan as of 1986 ranges from a low 51,446 in the case of HIRIS, to a high of 60,545 in the case of the INAC Indian Register. Several of the key reasons for this discrepancy are discussed below.

1. Data Collection: Enumeration Date

The 1986 Census was taken on June 3, 1986, the HIRIS data represent a mid-year (June 30, 1986) population count, and the Indian Register and Health and Welfare tallies are for December 31, 1986 and December, 1987 respectively.

Changes in the size of the Registered Indian population between June and December alone would result in different counts (the average annual growth rate of the Saskatchewan Indian population hovers around 2.9%). In addition, since passage of Bill C-31 in June 1985 to remove discriminatory sections of the Indian Act, many people have applied to be reinstated as Registered Indians. By August 1988, some 10,200 Saskatchewan applications for reinstatement had been made and 4,300 persons had been added to Band lists (correspondence with INAC, August 1988). How many of these were processed in 1986 is unknown, but undoubtedly some were.

2. Data Collection: Population Coverage

The 1986 Census excludes those individuals in institutional residences such as correctional and penal institutions, young offenders' facilities and jails, psychiatric institutions, hospitals, orphanages and children's homes, etc. (Statistics Canada, January 1987: 35-36). Given that Aboriginal people comprise a disproportionate share of the population of such facilities, this exclusion is important. In contrast, neither the INAC nor the Health and Welfare data exclude these institutions.

In the case of HIRIS, children who are wards of the province as well as special RCMP constables and inmates of federal correctional facilities are excluded from the counts.

Table 1

Indian Register, Health and Welfare, HIRIS and Census Counts of the Registered/Aboriginal/North American Indian Population of Saskatchewan, by On- and Off-Reserve Locations, 1986

Source		Total Reg Indian Pop	On-Reserve Reg Indian Pop[1]	Off-Reserve Reg Indian Pop
Indian Register	Dec 1985	56,747	37,250	19,497
	Dec 1986	60,545	38,744	21,801
		Total Aboriginal Pop On-Reserve[2]	Registered Indian Pop On-Reserve[3]	Others On-Reserve[4]
Health & Welfare	Dec 1987	35,459	33,628	1,831
		Total Reg Ind Pop[5]		
HIRIS	June 1985	49,458		
	June 1986	51,446		
		Total Aboriginal Population[6]	Total North American Indian(NAI) Population[7]	Total Aboriginal Pop On-Reserve
Statistics Canada	June 3, 1986	77,650	55,215	27,035
		Total NAI Pop On-Reserve	Total Aboriginal Pop Off-Reserve	Total NAI Population Off-Reserve
		26,690	50,615	28,535

Notes:

1. Includes Registered Indian residents on a reserve (own or other) or on crown land.
2. Includes Registered Indians, Non-Status Indians, Metis and Inuit.
3. Includes 493 students enrolled in residential schools located off-reserve.
4. Includes Non-Status Indians, Metis, and Inuit.
5. Excludes RCMP special constables, wards of the province and inmates of federal correctional facilities.
6. Includes North American Indians (NAI), Metis, Inuit and those with multiple origins (i.e., NAI and Non-Aboriginal; NAI and Metis; NAI and Inuit; NAI, Metis and Inuit; and so forth). Excludes institutional residents (see text for discussion).
7. Includes NAI with multiple origins (i.e., NAI and Non-Aboriginal, NAI and Metis, NAI, Metis and Non-Aboriginal; NAI; Inuit and Non-Aboriginal).

Sources: INAC, 1986, 1987; HIRIS, 1987; Statistics Canada, June 1988; and Medical Services Branch, 1988.

Figure 1: 4 Population Data Bases Compared

	Indian Register	Health & Welfare	HIRIS	Statistics Canada
Enumeration Date	Dec. 31, 1986	Dec. 1987	June 30, 1986	June 3, 1986
Population Coverage	-Registered Indians	-Reserve/crown land residents plus those in residential schools who receive medical services from H & W	-Registered Indians by Band affiliation who reside in Saskatchewan and have been issued a Health Insurance card	-all self-defined Aboriginal people, that is, North American Indians (NAI), Metis, Inuit and those with multiple origins (e.g. NAI, Metis, NAI and Non-Aboriginal, Metis and Inuit, NAI, Metis and Non-Aboriginal etc.)
Definition of On/Off Reserve Resident	-uncertain	-one who usually lives here	-not applicable	-those residing on reserve or crown land or who usually reside on crown land as of June 3, 1986
Exclusions	-others resident on-reserve	-northern settlement residents who receive medical services from Medical Services Branch, Saskatchewan Health and all off-reserve residents	-wards of the province, special RCMP constables and inmates of federal correctional facilities	-institutional residents, that is, residents of institutional 'collective dwellings' including children's homes, hospitals and institutions for the elderly as well as a variety of correctional and penal institutions
Related Considerations	-births and deaths susceptible to lengthy delays; no information with regard to location of off-reserve residence	-provides no information about off-reserve population	-Band populations periodically verified through consultations with Band councils	-4 bands were not completely enumerated nor were 6 northern settlements and 15 settlements with populations of less than 40
Population	-total Reg. Indian pop.- 60,545; pop. on-res.- 38,744; pop. off-res. - 21,801	-total Reg. Indian pop.- 35,459; on-reserve - 33,628; others on reserve - 1,338, in residential schools- 493	-total Reg. Indian pop. - 51,446	-Total Aboriginal - 77,650; North American Indian- 43,385; Metis - 12,220; Inuit - 40; multiple origins - 11,830

All Registered Indians who are members of Saskatchewan Indian Bands, regardless of current place of residence, are included in the Indian Register data. But only individuals who receive medical care through the Medical Services Branch of Health and Welfare, be they Registered Indian, Non-Status Indian or Metis, are included in the H & W count. The HIRIS data, in contrast, are based upon a count of Registered Indians who reside in Saskatchewan and possess a valid Health Insurance card.

The Census data, in marked contrast, are derived from a question on ethnicity which "emphasizes the concept of self-perception" (Statistics Canada, January 1987:5). The question reads: "Do you consider yourself an aboriginal person or a native Indian of North America, that is, Inuit, North American Indian or Metis?" (Ibid).

To date, Statistics Canada, unlike the Indian Act, does not provide a breakdown of Aboriginal people which distinguishes between Registered and Non-Status Indians. Thus, whereas INAC figures refer to Saskatchewan Registered Indians residing on- or off-reserve, the Census figures refer to all Aboriginal persons residing on- or off-reserve as of June 3, 1986.

3. Data Collection: Non-Response to the Census Questions

Census data on Aboriginal people residing on reserves can only be obtained if persons respond to the ethnic origin question. In the case of Saskatchewan, 4 Bands with a total on-reserve population of approximately 700 refused to be enumerated (Health & Welfare population count).

4. Data Collection: On-Off-Reserve Definitions

Discrepancies between the various data sources also arise as a consequence of the different methodologies used to calculate on-off-reserve populations. The Census data "are based on the de facto enumeration of persons on the day of the Census taking" (Boyd & Rosenberg, 1987:5). As regards the INAC and Health and Welfare data sets, much uncertainty surrounds the definitions of on- and off-reserve residence used. However, the Medical Services Branch indicated that while no formal definition guided the counts, its operational definition considered all those who "usually live here" to be resident on-reserve. Although such a definition is lacking somewhat in precision, it has considerable intuitive appeal, especially in light of the transiency of Native people. Clatworthy and Hull, for example, found that more than one-third of Native residents of Saskatoon and Regina " had lived in the city on at least 1 prior occasion and more than 16 percent on at least 2 prior occasions" (1983:47).

According to Boyd and Rosenberg, INAC considers a Band member to be off-reserve if she/he has been away from the reserve for 12 consecutive months (1987:5). However, it appears that neither Band councils nor provincial governments are prepared to fully embrace this definition.

As regards the matter of the destination of the off-reserve Registered Indian population of Saskatchewan, the Indian Register, the HIRIS, and the Health and Welfare data sets are of little assistance. Statistics Canada data on the ethnic composition of Saskatchewan by community (city, town, village, etc.) are scheduled for release in late 1988/early 1989.

In summary, the Saskatchewan population identified as Registered Indian/North American Indian will vary from one source to another. There are a variety of reasons for this, some associated with the methods and procedures used to collect data, some associated with the way residence is conceptualized, and some associated with how ethnicity is defined.

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